Assessment of home based newborn care (HBNC) program – Rajasthan

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ABSTRACT
Background
HBNC program launched in 2009 for post partum care of mother & new born by NRHM and NIPI. In first phase the program started in NIPI focus districts of Rajasthan such as: Alwar, Dausa, Bharatpur and later on implemented in all districts. According to this program ASHA will make 6-7 visits to provide home based care to mother and newborn till 42 days.

Objective
The study was conducted to assess the knowledge and skills of ASHAs in providing HBNC services, quality of visits and messages given to beneficiary.

Methodology
This was a cross sectional study. Total six districts, three with highest payment (Bharatpur, Jhunjhunu & Bundi) & three with lowest payment (Jodhpur, Jaisalmer & Barmer) were identified. The services assessed on: - Trainings, Knowledge about services giving in HBNC programme.

Results
Overall 83% ASHAs had undergone training of module 6-7 round 1 and 67% completed training of round 2 of module 6-7. 64% ASHAs knew that 48 hours stay is necessary and 98% ASHAs knew the importance of early initiation of breastfeeding.

Conclusion
Skill based Re-orientation training is required in all districts.

Keywords: HBNC, NRHM, NIPI, ASHA

INTRODUCTION
More than a quarter of global neonatal deaths occur in India. About two-thirds of infant deaths and half of under-five child deaths are during the neonatal period.1

As per Census 2011, the share of children (0-6 years) accounts 13% of the total population in the country. An estimated 12.7 lakh children die every year before completing 5 years of age. However, 81% of under-five child mortality takes place within one year whereas 57% of under-five deaths take place within first one month of life.2

It is estimated that around 40% of all stillbirths and neonatal deaths take place during labour and the day of birth, i.e. within 48 hours. About three-fourths of the total neonatal deaths occur in the first week of life.3

To reduce neonatal deaths GoI initiated a scheme HBNC Program providing "continuum of care" to mother and newborn till 42 days after delivery.
In 2009 the program was started in NIPI focus states Bihar, Rajasthan, Madhya Pradesh & Orissa. According to this ASHA will make 6-7 visits. In case of home delivery 7 home visits & for institutional delivery 6 home visits will be conducted by ASHA.

**OBJECTIVES**

1) To assess the knowledge and skills of ASHAs in providing HBNC services.
2) To explore the quality of visits in terms of messages given to beneficiary.

**METHODS AND MATERIALS**

This was a cross sectional study, which focused on highest & lowest payments districts, where payment (Incentive of HBNC) is highest, it is supposed that quality of HBNC services provided by ASHA.

**Study Area**

For the study total six districts, three with highest (Bharatpur, Jhunjhunu & Bundi) & three with lowest (Jodhpur, Jaisalmer & Barmer) payment districts of HBNC services were identified.

**Study Period**

April-June 2016

**Sampling Technique**

Purposive sampling

**Sample Size**

In each district two blocks were selected and from each block, two Primary Health Services (PHCs) were identified on the basis of highest & lowest payment of HBNC services

Within each PHC 5 ASHAs were selected for FGD, other 5 ASHAs for interview (i.e. 120 ASHAs for FGD and 120 ASHAs interviewed). Similarly 2 beneficiaries of each ASHAs i.e. 240 were interviewed for data collection.

**Study Tools:**

1) Interview Schedule – For ASHAs
2) Interview Schedule – For Beneficiaries (Who received HBNC services from July 2015 to February 2016) In depth Interview- For interaction with ASHAs at PHC level
3) Secondary Data : Reports of HBNC for 9 months

**Data Analysis**

Software for data entry was developed in MS Access and with the help of SPSS 16.0 data analysis was done.

**RESULTS**

**Training**

For providing HBNC services to mother and newborn, it is necessary for ASHA completed the training and should be equipped with the skills to provide such care. Those ASHAs who were completed the training of module 6 & 7 (first round) were eligible to undertake the HBNC visits and entitled for the HBNC incentives. Overall 83% ASHAs were trained in round first of module 6-7. In 2nd round of module 6-7, above 75% ASHAs were trained in all districts, except Barmer, there only 50% ASHAs were trained.

**Knowledge**

Knowledge of ASHAs on HBNC program were assessed during the study; such as duration of stay in hospital after delivery almost 64% ASHAs were aware about they said two days (48 hours) stay is necessary after delivery, 22.5% said that the duration of stay depends on the type of delivery is normal or C-section.

Importance of breastfeeding was assessed, it was found that 98% ASHAs reported best time of breast feeding is within 1 hour of delivery, during antenatal care (ANC) ASHA counsel the pregnant lady for initiating early breast feeding and explain the benefits of the early initiation to beneficiaries.
Table 1 Duration of Hospital Stay After Delivery: Responses of ASHAs

<table>
<thead>
<tr>
<th>Stay duration at hospital after delivery</th>
<th>Jaisalmer N=20</th>
<th>Jodhpur N=20</th>
<th>Barmer N=20</th>
<th>Bharatpur N=20</th>
<th>Bundi N=20</th>
<th>Jhunjhunu N=20</th>
<th>Total N=120</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than one day (Less than 24 Hours)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>One to two days (24 to 48 Hours)</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>7</td>
<td>0</td>
<td>15 (12.5%)</td>
</tr>
<tr>
<td>Two days (48 hours)</td>
<td>19</td>
<td>1</td>
<td>17</td>
<td>15</td>
<td>7</td>
<td>18</td>
<td>77 (64%)</td>
</tr>
<tr>
<td>Three to seven days (More than 48 hours)</td>
<td>0</td>
<td>16</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td>27 (22.5%)</td>
</tr>
</tbody>
</table>

Table 2 Initiation of Breast Feeding After Delivery: Responses of ASHAs

<table>
<thead>
<tr>
<th>Stay duration at hospital after delivery</th>
<th>Jaisalmer N=20</th>
<th>Jodhpur N=20</th>
<th>Barmer N=20</th>
<th>Bharatpur N=20</th>
<th>Bundi N=20</th>
<th>Jhunjhunu N=20</th>
<th>Total N=120</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within 1 hour</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>18</td>
<td>20</td>
<td>118 (98%)</td>
</tr>
<tr>
<td>Within 24 hours</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>2 (2%)</td>
</tr>
</tbody>
</table>

Danger Signs of Newborn
Out of total 120 ASHAs, 74% reported low or high temperature of new born is a danger sign for new born, 71% said problem in respiration and breastfeeding is danger sign, 50% said jaundice and 48% ASHAs said boils on body is danger signs. Some of them add low birth weight, non-active is also danger signs in newborns.

ASHAs were enquired about the services provided to newborn during home visits. During home visits majority of ASHAs counseled on priority for exclusive breastfeeding, measured weight and temperature of new born, identified danger signs in newborn, measure respiration rate and in last referral of newborn if required.

Fig 1 Services Provided by ASHA During Home Visits – Responses of ASHAs
**Messages**

Similar question about initiation of breast feeding after delivery was asked from the beneficiaries, during anti natal care (ANC) ASHA counsel pregnant lady for initiating early breast feeding and explain the benefits of the early initiation of breastfeeding to beneficiaries. Total 240 beneficiaries (20 from each district and 5 from each PHC) were interviewed during the study, 77.5% (186) beneficiaries reported to initiate breastfeeding within one hour of delivery. Out of 186 beneficiaries, 124 (67%) said ASHA counseled for the early breastfeeding. The reasons of not initiating breastfeeding within one hour such as mother or new born were not well, neonate admitted in NBSU, SNCU, C-section delivery and milk not come etc.

![Figure 2-Assessment of Skills- ASHAs](image)

**CONCLUSIONS AND RECOMMENDATIONS**

Majority of ASHAs 64 % (77) knew about the 48 hours stay is necessary after delivery, 98% ASHAs said breastfeeding to newborn should start within one hour of delivery and as result 78% beneficiaries had started breastfeeding within one hour after delivery. It shows during anti natal care ASHA had counseled to beneficiaries for early breastfeeding, and motivating the beneficiaries for breastfeeding within one hour after delivery.

Out of total 240, 92.5% (222) beneficiaries reported they have done exclusively breastfed the baby (till 6 months).

**Assessment of Skills**

During home visit ASHA should measure weight, temperature and respiration rate of newborn, for that ASHA should be familiar to use thermometer, weighing scale & ARI Timer. During study skill of ASHAs for using these equipments was assessed.

Out of total 240, 222 (93%) beneficiaries had done exclusive breastfeeding to the baby; they had not given any supplements to the child. It shows ASHAs counseled the beneficiaries for exclusive breastfeeding the baby till six month without any supplements.

**Messages During Home Visits**

During home visits 95% of ASHAs counseled for exclusive breastfeeding, measuring weight and temperature of new born and identify danger signs in new born. According to beneficiaries 85% ASHA counseled for exclusive breast feeding, measuring
weight of baby, given messages for hygiene and taking temperature. But counseling on how to keep baby warm and identification of danger signs is very less.

**Assessment of Skills**
Out of total 120 ASHAs, 60 (50%) used thermometer correctly. ARI timer can be used by only 36 (30%) ASHAs and 64 (54%) ASHAs knew how to use weighing machines.

Re-orientation training (focusing on danger signs, number of home visits, skill to use equipments, need of referral) is required in all six districts. The first contact of ASHAs after delivery should be improved as per guideline, especially in case of Home delivery. SMS alert system for notifying ASHA and ANM for HBPNC visits may also be developed. During home visits use or demonstration of HBNC flip book should be ensured, which would be helpful in discussions with beneficiaries and identifications of danger signs.

For better implementation of HBNC program, PHC ASHA supervisors should also be involved in this program. These supervisors may work effectively for mentoring, motivating and handholding of ASHA during the home visit.

**REFERENCES**